

CLAIMS:

1. A spray coating unit (1) for treating a moving paper or board web (3) with a treating agent, the spray coating unit comprising

5 - an application chamber (P2), through which the web (3) to be treated is arranged to travel, the application chamber (P2) comprising an inlet opening (4) for leading the web (3) into the application chamber (2) and an outlet opening (5) for leading the web out of the application chamber (2), and

10 - at least one row of nozzles comprising at least one nozzle (6) for spraying the treating agent on the surface of the web (3) in the application chamber (P2),

characterized by

- spraying members (15) for spraying water mist into the application chamber (P2).

15 2. A spray coating unit according to Claim 1, **characterized** in that the spraying members (15) are provided with members for atomizing water mist into an average drop size of no more than 150 μm , preferably no more than 50 μm .

3. A spray coating unit according to Claim 1 or 2, **characterized** in that spraying members (15) are fitted in the vicinity of the inlet opening (4) at least on one side of the web (3).

20 4. A spray coating unit according to Claim 3, **characterized** in that spraying members are fitted in the vicinity of the inlet opening (4) on both sides of the web (3).

5. A spray coating unit according to any of the preceding claims, **characterized** in that the spraying members comprise nozzles that are fitted next to each other in the cross direction of the web.

25 6. A method for treating a movable paper or board web (3) with a treating agent, the method comprising

- taking the web (3) into an application chamber (P2) through an inlet opening (4),

- spraying the treating agent on the surface of the web (3) in the application chamber (P2), and

- bringing the web (3) out of the application chamber (P2) through the outlet opening (5),
characterized in that water mist is sprayed into the application chamber (P2).

5 7. A method according to Claim 6, **characterized** in that water mist is sprayed into the application chamber (P2), its average drop size being not more than 150 μm , preferably not more than 50 μm .

8. A method according to Claim 6 or 7, **characterized** in that water mist is sprayed in the vicinity of the inlet opening (4) at least on one side of the web (3).

9. A method according to Claim 8, **characterized** in that water mist is sprayed to the vicinity of the inlet opening (4) on both sides of the web (3).